

DOCUMENT RESUME

ED 069 722

TM 002 174

TITLE Test Analysis Manual.
INSTITUTION Escambia County School Board, Pensaccla, Fla.
NOTE Evaluation Services.
23p.
EDRS PRICE MF-\$0.65 HC-\$3.29
DESCRIPTORS Computers; Evaluation; Evaluation Methods;
Information Processing; Instructional Programs; *Item
Analysis; *Manuals; Performance Tests; *Services;
Standardized Tests; Student Evaluation; *Testing;
Tests

ABSTRACT

This manual has four purposes. They are: (1) to list test analysis services available to teachers, (2) to explain information on the analysis printouts, (3) to provide help in interpreting analysis results, and (4) to suggest possible uses of test analysis data. It is noted that test analyses services are available to teachers for teacher-made tests and surveys if standard answer sheets are used, as well as for some standardized tests. Any one or all of the following services may be selected: (1) class performance analysis, (2) item analysis, (3) frequency distribution, and/or (4) response analysis. It is felt that by using the data generated, teachers will be helped in planning instruction, in evaluating student progress, and in improving test items. (Author)

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z																										TEACHER ONLY STUDENT ABSENT FOR PART		STUDENT NUMBER	
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z																										I II III IV			
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z																										FALL			
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z																										SPRING			
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z																										FORM OF THIS TEST IS			
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z																										A B C D			
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z																										1 2 3 4			
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z																										JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC			

ED 069722

USE PENCIL ONLY - ERASE COMPLETELY ANY MARKS YOU WISH TO CHANGE.

PERMISSION TO REPRODUCE THIS COPY
RIGHTED MATERIAL HAS BEEN GRANTED
BY

Helen Franke
TO ERIC AND ORGANIZATIONS OPERATING
UNDER AGREEMENTS WITH THE U.S. OFFICE
OF EDUCATION. FURTHER REPRODUCTION
OUTSIDE THE ERIC SYSTEM REQUIRES PER
MISSION OF THE COPYRIGHT OWNER

EVALUATION SERVICES
ESCAMBIA COUNTY SCHOOL BOARD
5404 LILLIAN HIGHWAY
PENSACOLA, FLORIDA 32506

Table of Contents

	Page
Acknowledgments	2
Introduction	3
Analysis Services	
Class Performance Analysis	4
Sample Printout	5
Explanation	6
Item Analysis	7
Sample Printout	8
Explanation	9
Frequency Distribution	10
Sample Printout	11
Explanation	12
Response Analysis	13
Sample Printout	14
Explanation	15
Obtaining Services	
Steps for Obtaining Test Scoring and Analysis Services	16
Request Form	17
Standard Answer Sheet	18

Acknowledgments

The Test Analysis Manual was developed in response to needs of and requests from instructional personnel in Escambia County. The handbook was compiled by participants and consultants in a workshop sponsored by Evaluation Services and funded through Educational Improvement Expense allocations (EIE).

Participants were:

James O. Brady
Mrs. Lydia Brossett
Mrs. Juanita Davison
William R. Eubanks
Mrs. Harriett Glenn
Harold M. Hicks
Mrs. Bessie Locke
Barron E. Mayo, Jr.
Mrs. Katie Ninton
Mrs. Ann Owens
Mrs. Jackie Reynolds
Mrs. Lala Reynolds
Mrs. Edna Rivers

Pensacola High School
Edgewater Elementary School
Brownsville Middle School
Workman Middle School
Brown-Barge Elementary School
Washington High School
Cordova Park Elementary School
Brownsville Middle School
Woodham High School
Pensacola High School
Escambia High School
Suter Elementary School
Washington High School

Consultants were:

Dr. Jacob G. Beard

Associate Professor
Department of Educational Research
Florida State University
and Director, Florida State-Wide
Ninth-Grade Testing Program

Dr. Howard W. Stoker

Professor and Acting Chairman
Department of Educational Research
Florida State University

H. George Loiselle

Supervisor of Testing
Dade County Public Schools

Dr. Helen B. Franke

Coordinator of Evaluation Services
Escambia County Public Schools

Introduction

This manual has four purposes:

1. To list test analysis services available to teachers.
2. To explain information on the analysis printouts.
3. To provide help in interpreting analysis results.
4. To suggest possible uses of test analysis data.

Test analysis services are available to teachers for teacher-made tests and surveys if standard answer sheets are used. These services are also available for some standardized tests.

Answer sheets are scored and analyzed; results are returned on printout sheets. Any or all of the following services may be selected:

- A. Class performance analysis
- B. Item analysis
- C. Frequency distribution
- D. Response analysis

Use of data can help teachers in planning instruction, in evaluating student progress and in improving test items. Suggestions have been listed for using each printout; moreover, additional ways of utilizing these printouts will be found through use.

Class Performance Analysis

Class performance analysis printouts provide a complete picture of each individual student's performance on a test. This sheet shows the per cent and total number of correct answers, the total number of incorrect answers and the total number of items not answered for each student. The printout also shows the specific response of each student to each item as well as listing standard scores for students.

The class performance analysis aids the teacher in:

1. Scoring and arranging results of tests in usable form.
2. Diagnosing strengths and weaknesses of individual students.
3. Grouping students according to varied levels of instruction.
4. Making individual pupil comparisons of pre- and post-test results.
5. Grading by use of per cent or standard score.



07/14/71

② } NUMBER
NUMBER

① MATH

DATE 00/00/00

GRADE 08

SECTION

30 SCHOOL

60 JONES

② } NUMBER
NUMBER

③ MARKING CODE: DASH - CORRECT, LETTERS A THROUGH E INCORRECT, ASTERISK - NO ANSWER

QUESTION NO

④

	1		2		3		4		5	
1	2	3	4	5	6	7	8	9	0	1
2	3	4	5	6	7	8	9	0	1	2
3	4	5	6	7	8	9	0	1	2	3
4	5	6	7	8	9	0	1	2	3	4
5	6	7	8	9	0	1	2	3	4	5
6	7	8	9	0	1	2	3	4	5	6
7	8	9	0	1	2	3	4	5	6	7
8	9	0	1	2	3	4	5	6	7	8
9	0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9	0

RIGHTS WRONGS				ST NO	STUDENT NAME	KEY	CBCA80BACABEACA0ACBBBCBACBCOACOBACBC000E8BECBOAE
(6)	(7)	(8)	(9)	(10)	(11)		
TOT	TOT	N-A					
64	32	5	13	000000001	ASHLEY	MARK	-----A---B---A---D---B-*****
62	31	19	0	000000002	BAXTER	KATHRY	-----E--E-C-O-E-BAO-----AAA-----AC---C-B-CE-B---O--
60	34	15	1	000000003	CUI BREATH	JEFY	-----CE-EDD-E-----AE-----C-E---B-----C-OC---E---
42	21	18	11	000000004	EASLER	ELIZAB	-----EECO-----E---A---E+B-EAOECE---A-CE-----**
40	24	25	1	000000015	EATON	JANICE	----CA-----EEE-EO-F-EEAAEEA-BCE-EE-F-C---ED---
56	28	22	0	000000005	ENGSKOW	JOHN	-----E---A---EE-BE-E-EAAEEAE00--OEACB-C-----
40	24	26	0	000000007	FRATELLO	ANNE	----EA---ADBE-E-BADBA--BO-EO--AER--OBAAAA---O---
42	21	23	6	000000008	GEARING	DARLE	-----AB-----EAEAE-C-AAACA-DAB-OBCE---AAO-----*
60	30	11	9	000000009	GINES	MODEST	-----E-B-----O-C-----*****--AE-ABCC---D---
72	36	14	0	000000125	GIRARD	KAREN	-----DDC--E--EO-C---AA-A---C-O---O---E---
66	33	17	0	000000356	GOODWIN	CYNTH	-O---O-E-OC---EO-A---C-CBC-D-----E--A-A---E---
72	36	14	0	000000012	HAMELI	DEBRA	-----EAC-----EC-C---B-----OEA-EC---CC-----
68	34	8	8	000000013	HILLIARO	RICH	-----A---*C---C---E---OE---B---A---A-----**
42	21	29	0	000000014	HORN	PETE	--E-Q-D-A-OCBEB-C-BE--EC--CAA-AAOB-OCDBBCA---E---
44	22	28	0	000000006	HUKLE	MARY	-----AEEA-E-E-EEEEACEOCBE---AEB-OBCCA---A-E-C---
68	34	16	0	000000016	KASPARIAN	S P	-----EBC---BE-----AA-A-OEC--BEA-C---E---
20	10	20	20	000000017	LAMPER	CHERRIE	-E---AC-AEEC---E-AE+O+CB*CA*-AAE*O**C*-----**
58	29	19	2	000000018	LEEMAN	NANCY	-----E-E+C-E-E-EE---OE-E-AEEE---A-EE---A---
40	20	27	3	000000019	LINVILLE	CHER	---EC-C-EAA---EBBOD*A*CEBC-E-E--EB-O**C-EA---ADA-
54	27	23	0	000000020	LOPEZ	SUSAN	-----BE--BED---CBEE---E-CAA---A-AC-CBB-C-OC-----
56	28	22	0	000000021	MAGNEIL	LOUIS	-----C-A-E-E---E-DAQ--BAAAE-DEB-ECCA-C---O---
58	29	20	1	000000022	MANNERS	ROSEM	---C---E-E-DD---E-EA---C-CAEE-EE--E-B-E-C---
40	20	8	22	000 000 3	MAY		---*****BB*---EA---E---C*B---*---B-*****
58	29	21	0	000000024	MIDCAFF	KATHI	-----E-COEAA---A-EE-C-E-DE---E---ECC-E-A-AE---
60	30	20	0	000000025	PAVONE	DAVID	---O-A---EO-A-A---O-O---AACAE-EBEC---B---ACE---
82	41	8	1	000000026	REED	EDWARD	-----EA---*ED-O-----B-----AD---
64	32	17	1	000000027	ROWENDER	DAN	-----EB--BAOAE-----AA---AC-C-OEBC-----E---
42	21	29	0	000000028	RYMAN	PATSY	---EAE-EOB-EEE-EOA-A---AAA-E-AER-EABC-CO---E-E-
52	26	23	1	000000029	SMITH	CAROL	---O---EO-E-C---O-EC-CBCCAA-OB-EEECA-A---E---
60	30	19	1	000000030	STARR	GLYNNE	---C-C---EA---EEQA*B---AB---AB-BAC--OD---O---
66	33	17	0	000000031	TOWNSENO	CATH	-----EBA-A---AA---B-DE-A---AC-EA-A-C---C---
76	38	12	0	000000032	TRIGGS	MELIND	-----CB---ED-E---CAA---B---AC---O---
52	26	24	0	000000033	WALTERS	SHIRL	---O-A---E-E-E-AADAEE-E-BA-AEABBE-E-A---C---B---
64	32	15	3	000000034	WEBER	QERRA	-----C-AEC-E---DEF-----A---B---F-BA-AD-----

CLASS PERFORMANCE ANALYSIS

PAGE 1

② NUMBER OF STUDENTS 34
NUMBER OF QUESTIONS 050

GRADE 08 SECTION 30 SCHOOL 60 JONES

THROUGH E INCORRECT, ASTERISK * NO ANSWER QUESTIONS BEGINNING 001
④ 1 2 3 4 5 6 7 8
123456789012345678901234567890123456789012345678901234567890

KEY ⑤ CBCABDBACABEACADACB8CBGACBCDACD8CACBCDDDE8BECBDADE ⑫ STD SCR

ARK	-----A---B---D-----D---B---*****	56
ATHRY	-----E--E-C-D-E-BAD---AAA---AC---C-B-CE-B--D--	54
EL	-----CE-EDD-E---AE---C---E---B---C-DC---E--	59
LIZAB	-----ECD---EE---A---E-B-EADECEE---A-CE---****	39
ANICE	-----CA---EEE-SED-E---EEAAEEA-BCE-EE-E-C---ED--	43
QHN	-----E---A---EE---BE---E---EAAEAEDD--DEACB-C-----	50
NNE	-----EA---ADBE-E-BADBA--BD-ED---AEh--DBAAAA---D--	43
ARLE	-----AB---EAEAE-C-AAACA-DAB-DBCE--AAD---****	39
ODEST	-----F-B---D-C---*****AE-ABCC---D	53
AREN	-----DDC---E---ED---C---AA-A---C-D---D---E--	62
INTH	-D---D-E-DC---ED-A---C---CBC-D---E---A-A---E--	57
BRA	-----EAC---EC-C---B---DEA-EC---CC---D	62
ICH	-----*C---C---E---DE---B---A---*****	59
TE	-E-D-D-A-DCBEB-CBE---EC---CAA-AADB-DCDBBC-A---E--	39
ARY	-----AEEA-E-E-EEEEACEDCBE---AEB-DBCCA-A---E-C--	40
P	-----EBC---BE---AA-A-DEC---BEA-C---E--	59
ERRE	-E---AC-AEEC---E-AE-D-CB-CA--AAE---D---C---*****	21
NCY	-----E---E-C-E-E-EEE---DE-E---AEEE---A-EE---A-	51
HER	-----EC-C---EAA---EBBDDA-CEBC-E-E---EB-D---C-EA---ADA-	37
SAN	-----BE---BED---CBBEE---ECAA--A-AC-CBB-C-DC---D--	48
UIS	-----C-A-E---E-DAD---BAAAE-DEB---ECCA-C---D--	50
SEM	-----C---EE-DD---E-EA---C---CAAE-EE---F-B-E---C--	51
	-----*BB---EA---E---C-B---B---*****	37
THI	-----E---CDEAA---A-EE-C-E-DE---E---ECC-E-A-AE--	51
VID	-----D-A---ED-A-A---D-D---AACA-EBEC---B---ACE--	53
WARD	-----EA---*ED-D---AEEA---B---AD	70
N	-----EB---BADA---AA---AC-C---DEBC---A-E--	56
TSY	-----EAE-EDDB-EEE-EDD-A---AAA-E-AEB---EABC-CD---E-E-	39
RDL	-----D---ED-E-C---D-EC---CBCCAA-DB-EECA-A---E--	46
YNNE	-----C-C---EA---EEDA-B---AB---AB---BAC--DO---D--	53
TH	-----EBA-A---AA---B-DE-A-AC---EA-A-C---C--	57
LIND	-----CB---ED-E---CAA---B---AC---D--	65
IRL	-----D-A---E-E-E-AADEE-E-BA-AEABBE-E-A-C---B--	46
BRA	-----C-AEC-E---BEE---A---B---E-BA-AD---****	56

Explanation: Class Performance Analysis Printout

The numbers below refer to the numbers circled on the sample printout.

General information includes:

1. Reading from left to right, subject, date, grade, section number, school number and teacher's name.
2. Number of students and number of questions.
3. Marking Code:
 - a. Dash (-) indicates a correct answer
 - b. Letters A through E indicate incorrect answers.
 - c. Asterisk (*) indicates no answer was given.
4. Question Number. To read one-digit numbers, use the first group of numbers 1-9 on the bottom scale. For two-digit numbers, read the top number as a multiple of 10 and add the bottom digit.

EXAMPLE: 1 2 3 4 5 6 7 8 9 0 ¹ 1 2 3 4 5 6 7 ² 8 9 0
 To read Item 18, read the 1 on the top scale as ten, then locate the eight to the right.

5. Key. The row of letters to the right of the word KEY indicates the correct response for each item. Read the number of the question; then directly below find the letter of the alphabet which indicates the correct answer. For example, C is the correct answer for Item 1.

Information for each student includes:

6. %. Per cent of questions answered correctly.
7. RIGHTS TOT. Total number of correct responses.
8. WRONGS TOT. Total number of incorrect responses.
9. N-A. Total number of items not answered.
10. ST NO. Student's identification number if used.
11. STUDENT NAME. Student's name.
12. STD SCR. Standard scores on the printout apply only to the group for whom the particular frequency distribution is listed. Standard scores are units of measurement which tell the distance a given score is from the mean. Standard scores used in Escambia County range from a low of 20 to a high of 80. The mean of a standard score distribution is 50; the standard deviation is 10. In a normal distribution, 68% of pupils' scores will lie between 40-60; 95% between 30-70; and 99% between 20-80.

Example: Mark Ashby had a raw score of 32 and correctly answered 64% of the total number of items. He had five wrong answers; thirteen questions were not answered. His answer for Item 37 was B; the correct answer was C. Mark correctly answered ten out of the first eleven questions; however his answer for Item 12 was incorrect. He failed to answer Items 40-44. His standard score was 56 which indicated that the score was just above the mean.

Item Analysis

Item analysis printouts record the performance of the total group on each item and the frequency with which the high- and low-scoring groups chose alternate responses to each item. Both the difficulty level and the discrimination index are also listed for each item.

The item analysis aids the teacher in:

1. Analyzing pupil performance on each test item.
2. Detecting learning difficulties of the class as a whole.
3. Identifying areas or skills needing initial instruction, review or remediation.
4. Indicating pupil achievement of objectives.
5. Selecting items for development of a test.
6. Identifying structural or content defects in test items.
7. Revising and refining tests.



RUN BY EEDPC ON:
07/15/71

ITEM ANALYSIS

① MATH DATE 00/00/00 GRADE 08 SECTION 30 SCHOOL 60 JONES
③ ITEM ANALYSIS SHEET - INDICATES CORRECT RESPONSE TO QUESTIONS, X INDICATES X CORRECT.

ITEM	A	B	C	D	E	N-A	⑤	DISC INDEX	⑥	ITEM	A	B
1	0	0	11	0	0	0	100			2	0	10
	0	0	11	0	0	0	100				0	10
	0	0	34	0	0	0	100	.00			0	32
3	0	0	11	0	0	0	100			4	11	0
	0	0	9	0	1	1	81				9	0
	0	0	32	0	1	1	94	.18			30	0
5	0	11	0	0	0	0	100			6	0	0
	0	1	2	2	2	4	9				4	0
	0	20	3	3	3	5	58	.91			4	1
7	1	6	2	1	1	0	54			8	9	1
	1	5	2	1	1	1	45				10	0
	3	15	6	2	6	2	44	.09			29	1
9	2	0	8	0	1	0	72			10	7	0
	3	0	6	0	1	1	54				6	0
	6	0	23	1	3	1	67	.18			19	1
11	2	0	2	3	3	1	0			12	1	3
	3	0	1	2	3	2	0				2	3
	7	3	3	7	10	4	8	.00			6	7
13	9	0	2	0	0	0	81			14	0	0
	8	3	0	0	0	0	72				0	0
	29	3	2	0	0	0	85	.09			1	0
15	10	1	0	0	0	0	90			16	1	0
	8	1	0	0	2	0	72				0	0
	29	2	0	0	3	0	85	.18			2	0
17	7	0	1	2	0	1	63			18	2	2
	10	1	0	0	0	0	90				2	3
	27	3	1	2	0	1	79	-.27			5	8
19	3	1	0	0	7	0	9			20	0	5
	4	0	0	2	5	0	0				0	2
	9	5	0	2	16	2	14	.09			0	9
21	0	0	11	0	0	0	100			22	0	7
	3	1	5	1	1	0	45				4	0
	5	1	25	1	2	0	73	.55			4	12

ITEM ANALYSIS

PAGE
2SECTION 30 SCHOOL 60 JONES
TO QUESTIONS, X INDICATES X CORRECT.② NUMBER OF STUDENTS 34
NUMBER OF QUESTIONS 050

⑤	DISC INDEX ⑥	ITEM	A	B	C	D	E	N=A	X	DISC INDEX
00		2	0	10-	0	1	0	0	90	
00			0	10-	0	0	1	0	90	
00	.00		0	32-	0	1	1	0	94	.00
00		4	11-	0	0	0	0	0	100	
81			9-	0	0	0	1	1	81	
94	.18		30-	0	1	1	1	1	88	.18
00		6	0	0	0	11-	0	0	100	
9			3	0	0	7-	0	0	63	
58	.91		4	1	0	29-	0	0	85	.36
54		8	9-	1	0	0	1	0	81	
45			10-	0	0	0	0	1	90	
44	.09		29-	1	1	0	2	1	85	-.09
72		10	7-	0	0	0	3	1	63	
54			6-	0	0	0	5	0	54	
67	.18		19-	1	0	0	13	1	55	.09
0		12	1	3	3	2	2-	0	18	
0			2	3	2	2	2-	0	18	
8	.00		6	7	7	7	7-	0	20	.00
81		14	0	0	9-	0	2	0	81	
72			0	0	1-	0	6	4	9	
85	.09		1	0	16-	1	11	5	47	.73
90		16	1	0	0	8-	2	0	72	
72			0	0	1	3-	7	0	27	
85	.18		2	0	3	17-	12	0	50	.45
63		18	2	2	7-	0	0	0	63	
90			2	3	0-	0	6	0	0	
79	-.27		5	8	11-	0	10	0	32	.64
9		20	0	5-	1	3	2	0	45	
0			0	2-	0	5	2	2	18	
14	.09		0	9-	1	14	7	3	26	.27
00		22	0	7-	1	1	2	0	63	
45			4	0-	0	0	5	2	0	
73	.55		4	12-	2	4	9	3	35	.64

Explanation: Item Analysis Printout

The numbers below refer to the number circled on the sample printout.

1. Reading from left to right, subject, date, grade, section number, school number and teacher's name.
2. Number of students and number of questions.
3. Dash: Indicates correct response to an item. % indicates per cent correct.
4. ITEM: The number of the test question. Odd-numbered items are on the left; even-numbered items are on the right. The printout shows the number of responses to each alternative (A, B, C, D, E) for each item. The top row lists responses for the upper third of the group based on total rights; the second row lists the lower third of the group; the third row lists the total group.

Example. Item 5. 11 students in the upper third of the group chose B which is the correct answer; one student in the lower third chose answer B; 20 students in the total group selected B. No students in the upper third selected A, C, D, or E; in the lower third no student chose A but two selected C, two selected D and two selected E; in the total group no one selected A but three selected C, three selected D and three selected E.

5. % (per cent). Indicates the level of difficulty of each item. Lists the per cent of students correctly answering each item.

Example. Item 5. 100% of the students in the upper third answered Item 5 correctly; 9% of the lower third answered correctly; 58% of the total group correctly answered Item 5.

6. DISC INDEX (Discrimination Index). A measure of how well each item discriminates or distinguishes between those who scored high on the test and those who scored low on the test. The discrimination index ranges from +1.0 to -1.0. A positive correlation indicates that the item was answered correctly by more high scorers than low scorers; a zero correlation indicates that the item was answered correctly by as many low scorers as high scorers; a negative correlation indicates that the item was answered correctly by more low scorers than high scorers.

Example. On Item 22, 7 students in the upper third answered correctly; no students in the lower third answered correctly; the discrimination index is .64. However on Item 17, 7 students in the upper third answered correctly; 10 students in the lower third; the discrimination index is -.27 since more students in the lower group answered correctly. On Item 1, 11 students in the upper group answered correctly and 11 students in the lower group answered correctly; therefore the discrimination index of the item is .00 since the same number of students in each group answered the item correctly.

Frequency Distribution

Frequency distribution printouts are graphic presentations of students' scores indicating relative performance on a particular test. This sheet lists the distribution and the frequency of the students' total scores based on total right answers. Also included are mean, median, standard deviation, standard error of measurement, KR-20 reliability coefficient and standard scores.

The frequency distribution aids the teacher in:

1. Determining the average performance of the group.
2. Indicating the variability or spread of the scores.
3. Determining the reliability of the test.
4. Comparing a pupil's performance with the group's performance.
5. Making group comparisons between pre- and post-test results.
6. Comparing one group to other groups on the same test.



RUN BY EEDPC ONI

07/15/71

FREQUENCY DISTRIBUTION

① MATH

DATE 00/00/00

GRADE 08

SECTION 30

SCHOOL 60

JONES

STD TOT # OF (PLOT OF FREQUENCY DISTRIBUTION
SCR RT STUD ⑥ M EQUALS 1

⑧ STATISTICS IN RAW SCORES

③ ④ ⑤

00 50 0

49 0

48 0

47 0

46 0

45 0

44 0

43 0

42 0

70 41 1 M

40 0

39 0

65 38 1 M

37 0

62 36 2 MM

35 0

39 34 3 MM

33 2 MM

56 32 3 MM

31 1 M

53 30 3 MM

29 3 MM

50 28 2 MM

27 1 M

48 27 1 M

26 2 MM

25 0

43 24 2 MM

23 0

40 22 1 M

39 21 4 MM

37 20 2 MM

19 0

18 0

17 0

16 0

15 0

14 0

13 0

12 0

11 0

21 10 1 M

9 0

8 0

7 0

6 0

5 0

4 0

3 0

2 0

11

FREQUENCY DISTRIBUTION

SECTION 30 SCHOOL 60 JONES

PAGE

3

(2) NUMBER OF STUDENTS 34
(9) NUMBER OF QUESTIONS 050

(9) MEAN = 28.29
ST DEV = 6.31 (10)

(11) MEDIAN = 29.00

STANDARD ERROR = 2.82 (12)

KR-20 RELIABILITY (R) = .80 (13)

(8) STATISTICS IN RAW SCORES

Explanation: Frequency Distribution Printout

The numbers below refer to the numbers circled on the sample printout.

1. Reading from left to right, subject, date, grade, section number, school number and teacher's name.
2. Number of students and number of questions.
3. STD SCR. Standard scores on the printout apply only to the group for whom the particular frequency distribution is listed. Standard scores are units of measurement which tell the distance a given score is from the mean. Standard scores used in Escambia County range from a low of 20 to a high of 80. The mean of a standard score distribution is 50; the standard deviation is 10. In a normal distribution, 68% of pupils' scores will lie between 40-60; 95% between 30-70; and 99% between 20-80.
4. TOT RT. Total right answers.
5. # OF STUDENTS. Number of students making a designated score.
6. PLOT OF FREQUENCY DISTRIBUTION. M EQUALS 1. Indicates how many students are represented by each M.
7. M. Tallies indicating individual scores.
8. STATISTICS IN RAW SCORES. The following are computed in raw scores: mean, standard deviation, median, standard error and KR-20 reliability.
9. MEAN. An arithmetic "average" of a set of scores.
10. STANDARD DEVIATION (S.D.). A measure of the variability or "spread" of a set of scores. The closer the scores are to the mean, the smaller the standard deviation. In a normal distribution, 68% of the scores are within the range from one S.D. below the mean to one S.D. above the mean.
11. MEDIAN. A point dividing scores into two equal groups. The "middle" score.
12. STANDARD ERROR. No test has perfect reliability with the result that an individual should be considered as scoring within a range from several points below to several points above the obtained score on a test. For example, a test has a standard error of 4 points. This means that there are two out of three chances that the true test score of a person who has a raw score of 60 could be as much as 4 points above or 4 points below that score; thus the true score might be as low as 56 or as high as 64.
13. KR-20 RELIABILITY COEFFICIENT (R). An indication of whether similar results would be obtained if the same test or an equivalent form were administered to the same students; the consistency with which a test is measuring what it does measure. If the reliability coefficient is high (.75 or greater), one can be reasonably confident that an individual's score would not change substantially if he were to retake the same test or an alternate form.

Response Analysis

Response analysis printouts are tabulations of the responses of the total group to each item. The printout lists the number and the per cent of students responding to each alternative (A, B, C, D, E) for each item.

The response analysis aids the teacher in:

1. Evaluating surveys and attitudinal questionnaires.
2. Analyzing responses on each item.



RUN BY EEDPC ON:
07/15/71

RESPONSE ANALYSIS

② SCHOOL: 60 GRADE: 08 SECTION: 30 TEACHER: JONES

④ RESPONSES							
QUESTION	A	B	C	D	E	NA	A
1	0	0	34	0	0	0	0.00
2	0	32	0	1	1	0	0.00
3	0	0	32	0	1	1	0.00
4	30	0	1	1	1	1	88.24
5	0	20	3	3	3	5	0.00
6	4	1	0	29	0	0	11.76
7	3	15	6	2	6	2	8.82
8	29	1	1	0	2	1	85.29
9	6	0	23	1	3	1	17.65
10	19	1	0	0	13	1	55.88
11	7	3	3	7	10	4	20.59
12	6	7	7	7	7	0	17.65
13	29	3	2	0	0	0	85.29
14	1	0	16	1	11	5	2.94
15	29	2	0	0	3	0	85.29
16	2	0	3	17	12	0	5.88
17	27	3	1	2	0	1	79.41
18	5	0	11	0	10	0	14.71
19	9	5	0	2	16	2	26.47
20	0	9	1	14	7	3	0.00
21	5	1	25	1	2	0	14.71
22	4	12	2	4	9	3	11.76
23	0	1	9	23	1	0	0.00
24	29	1	1	0	3	0	85.29
25	1	4	19	1	4	5	2.94
26	5	14	11	2	2	0	14.71
27	17	5	5	3	1	3	50.00
28	14	3	2	6	6	3	41.18
29	24	0	3	1	5	1	70.59
30	10	0	13	2	7	2	29.41
31	7	0	0	24	2	1	20.59
32	4	22	1	6	1	0	11.76
33	6	5	8	3	10	2	17.65
34	9	11	8	0	3	3	26.47
35	1	0	25	1	5	2	2.94
36	0	22	3	6	3	0	0.00
37	1	8	8	3	9	5	2.94
38	4	4	5	9	7	5	11.76
39	1	4	7	20	2	0	2.94
40	13	4	7	6	1	3	38.24
41	1	1	0	0	29	3	2.94
42	7	8	10	3	3	3	20.59
43	3	14	6	4	4	3	8.82
44	1	0	0	1	29	3	2.94
45	0	1	33	0	0	0	0.00
46	2	29	1	0	1	1	5.88
47	1	0	1	22	5	5	2.94
48	12	1	1	7	6	7	35.29
49	3	0	1	22	1	7	8.82
50	0	0	0	2	25	7	0.00
⑥ TOTAL:	391	285	359	269	292	104	⑦ TOTAL: 23.00

RESPONSE ANALYSIS

PAGE NO

4

① NUMBER OF STUDENTS
SUBJECT: MATH ③ TEST DATE: 00/00/00
⑤ PER CENT

A	B	C	D	E	NA
0.00	0.00	100.00	0.00	0.00	0.00
0.00	94.12	0.00	2.94	2.94	0.00
0.00	0.00	94.12	0.00	2.94	2.94
88.24	0.00	2.94	2.94	2.94	2.94
0.00	58.82	8.82	8.82	8.82	14.71
11.76	2.94	0.00	85.29	0.00	0.00
8.82	44.12	17.65	5.88	17.65	5.88
85.29	2.94	2.94	0.00	5.88	2.94
17.65	0.00	67.65	2.94	8.82	2.94
55.88	2.94	0.00	0.00	38.24	2.94
20.59	8.82	8.82	20.59	29.41	11.76
17.65	20.59	20.59	20.59	20.59	0.00
85.29	8.82	5.88	0.00	0.00	0.00
2.94	0.00	47.06	2.94	32.35	14.71
85.29	5.88	0.00	0.00	8.82	0.00
5.88	0.00	8.82	50.00	35.29	0.00
79.41	8.82	2.94	5.88	0.00	2.94
14.71	23.53	32.35	0.00	29.41	0.00
26.47	14.71	0.00	5.88	47.06	5.88
0.00	26.47	2.94	41.18	20.59	8.82
14.71	2.94	73.53	2.94	5.88	0.00
11.76	35.29	5.88	11.76	26.47	8.82
0.00	2.94	26.47	67.65	2.94	0.00
85.29	2.94	2.94	0.00	8.82	0.00
2.94	11.76	55.88	2.94	11.76	14.71
14.71	41.18	32.35	5.88	5.88	0.00
50.00	14.71	14.71	8.82	2.94	8.82
41.18	8.82	5.88	17.65	17.65	8.82
70.59	0.00	8.82	2.94	14.71	2.94
29.41	0.00	38.24	5.88	20.59	5.88
20.59	0.00	0.00	70.59	5.88	2.94
11.76	64.71	2.94	17.65	2.94	0.00
17.65	14.71	23.53	8.82	29.41	5.88
26.47	32.35	23.53	0.00	8.82	8.82
2.94	0.00	73.53	2.94	14.71	5.88
0.00	64.71	8.82	17.65	8.82	0.00
2.94	23.53	23.53	8.82	26.47	14.71
11.76	11.76	14.71	26.47	20.59	14.71
2.94	11.76	20.59	58.82	5.88	0.00
38.24	11.76	20.59	17.65	2.94	8.82
2.94	2.94	0.00	0.00	85.29	8.82
20.59	23.53	29.41	8.82	8.82	8.82
8.82	41.18	17.65	11.76	11.76	8.82
2.94	0.00	0.00	2.94	85.29	8.82
0.00	2.94	97.06	0.00	0.00	0.00
5.88	85.29	2.94	0.00	2.94	2.94
2.94	0.00	2.94	64.71	14.71	14.71
35.29	2.94	2.94	20.59	17.65	20.59
8.82	0.00	2.94	64.71	2.94	20.59
0.00	0.00	0.00	5.88	73.53	20.59
⑦ TOTAL	23.00	16.76	21.12	15.82	6.12

Explanation: Response Analysis Printout

The numbers below refer to the numbers circled on the sample printout.

1. Number of students.
2. Reading from left to right, school number, grade, section number and teacher's name.
3. Subject and date of test.
4. Responses. Shows the number of responses to each alternative (A, B, C, D, E) for each item. The NA column indicates the number of students not responding to the item.
5. Per cent. Shows the per cent of responses to each alternative (A, B, C, D, E) for each item. The NA column indicates the per cent of students not responding to the item.
6. Total. Lists the total number of responses to each alternative (A, B, C, D, E) for the entire test.
7. Total. Lists the total per cent of responses to each alternative (A, B, C, D, E) for the entire test.

Example: Item 9. Six students or 17.65% selected alternative A; no students or 0.0% selected B; 25 students or 67.65% chose C; one student or 2.94% responded D; three students or 8.82% chose E; one student or 2.94% did not respond to Item 9.

Steps for Obtaining Test Scoring and Analysis Services

A. Standard Answer Sheets

1. The school office can requisition standard answer sheets from the Materials Warehouse. Use the warehouse requisition when ordering.
2. Students should record responses on standard answer sheets.
3. #2 pencils must be used in marking the answer sheets. Do not use ball-point or felt pens.
4. Student names should be gridded on the answer sheets; however do not grid names if it is desired that responses be anonymous.
5. Students numbers should be gridded on the answer sheets when appropriate. If pre-post evaluation is desired, student numbers must be gridded. The same student number should not be assigned to any two students; a student should use the same number for both tests.

B. Form: Request for Test Scoring and Test Analysis

1. The school office should have a supply of the yellow request forms. Forms can be requested by telephone from Evaluation Services and will be sent by courier upon request.
2. Complete all information requested on the form.
3. Check the services requested.

C. Preparing Materials for Scoring and Analysis

1. Prepare keys and answer sheets as indicated on the request form.
2. Send or bring completed request form, key and answer sheets to:

Evaluation Services
Educational Services Center
5404 Lillian Highway

D. Receiving Test Results from Evaluation Services

1. Scoring Services: If answer sheets are sent to Evaluation Services by courier, allow 3-4 days for results to be returned. If answer sheets are delivered personally, it will require 10-15 minutes to score the answer sheets provided you call to schedule processing time; however remember to call ahead.
2. Analysis Services: If answer sheets are sent to Evaluation Services by courier, allow 7-8 days for printouts to be returned to the school. If answer sheets are delivered personally, allow 3-4 days for printouts to be returned to the school; however remember to call ahead to schedule processing time.

For further information, call Evaluation Services: 456-8631, ext. 226 or 227.

REQUEST FOR TEST SCORING AND TEST ANALYSIS

1.0 COMPLETE THE FOLLOWING INFORMATION.

- 1.1 School Name
- 1.2 Teacher's Name
- 1.3 Subject Name
- 1.4 Date (use numerals)
- 1.5 Grade
- 1.6 Section Number
- 1.7 Number of Student Answer
Sheets Attached
- 1.8 Number of Questions
- 1.9 Number of Sections Using the Same Key

2.0 CHECK THE SERVICES REQUESTED.

- 2.1 Scoring (printing the number of total rights on
each answer sheet) ☐
- 2.2 Class Analysis ☐
- 2.3 Item Analysis ☐
- 2.4 Frequency Distribution ☐
- 2.5 Response Analysis ☐
- 2.6 Test Analysis Printouts (includes 2.2-2.5) ☐

3.0 PREPARE A KEY AS INDICATED BELOW.

- 3.1 Mark the correct answers on an answer sheet.
- 3.2 In the space for city, write the word "KEY".

4.0 PREPARE ANSWER SHEETS AS INDICATED BELOW.

- 4.1 Separate answer sheets by section.
- 4.2 Place one copy of this form on top of each section of answer sheets.
- 4.3 Enclose the KEY with each section of answer sheets. (If the same
key is to be used in scoring more than one section of answer sheets,
attach only one key.)

5.0 SEND OR BRING THIS FORM, KEY AND ANSWER SHEETS TO:

Evaluation Services
Educational Services Center
5404 Lillian Highway

5.0 FOR FURTHER INFORMATION, CALL EVALUATION SERVICES: 456-8631, ext. 226 or 227.

Standard Answer Sheet

[illegible]

USE PENCIL ONLY - ERASE COMPLETELY ANY MARKS YOU WISH TO CHANGE

SCHOOL	CITY	GRADE	INSTRUCTOR	TEST
				I
				1
				2
				3
				4
				5
				6
				7
				8
				9
				10
				11
				12
				13
				14
				15
				16
				17
				18
				19
				20
				21
				22
				23
				24
				25
				26
				27
				28
				29
				30
				31
				32
				33
				34
				35
				36
				37
				38
				39
				40
				41
				42
				43
				44
				45
				46
				47
				48
				49
				50
				51
				52
				53
				54
				55
				56
				57
				58
				59
				60
				61
				62
				63
				64
				65
				66
				67
				68
				69
				70
				71

Contact Evaluation Services if you plan to use any answer sheet other than the one above.